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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/045,289	06/30/1999	SRIDHAR SRINIVASA IYENGAR	04MV1073	1050

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EXAMINER

ANYA, CHARLES E

ART UNIT

PAPER NUMBER

2151

DATE MAILED: 07/17/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/345,289

Applicant(s)

IYENGAR, SRIDHAR SRINIVASA

Examiner

Charles E Anya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 June 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 recites the limitation "said metadata" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

The applicant recites "said metadata" in claim 1, which is an inappropriate dependent.

The Examiner will take "said metadata" to mean "a metadata".

3. Claims 2 – 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The applicant recites "The system" in claims 2 – 5, which is an inappropriate dependent.

This is because claims 2 – 5 are dependent on claim 1, which is a method claim. The Examiner will therefore take "The system" in claims 2 – 5 to mean "The method".

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 1 – 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,018,627 to Iyengar et. al. in view of Bray et. al. and in further view of Birsan et. al.

As to claim 1, Iyengar teaches a Repository (Repository 20), a Software Modeling Tool (Legacy Integration 26, Domain Modeling 27, Enterprise Modeling 28, Different Tools 124, Miscellaneous Tools 128, Mood 142, Visual Basic, C++, COBOL, JAVA), a Second Type (“...type...”, Col. 10, Ln. 22 – 35, “...type information...”, Col. 10, Ln. 45 - 49), a Distributed Heterogeneous Environment (“...middleware independence...”, Col. 5, Ln. 42 – 65, “...different environments...”, Col. 11, Ln. 26 – 47), Data Interchange (“Each tool...”, Col. 4, Ln. 21 – 26 ), Streams (.vbp file, .cls file, .ccp file, .cbl file, JAVA file, Col. 9, Ln. 59 – 67) .

Iyengar is silent with reference to a first type, a metadata, a meta model, a set of rules, streams, generating documents, an importer, and an exporter.

Bray teaches a Set of Rules (DTD, pages 9, Ln. 29 – 35, page 10, Ln. 1 – 12). It would have been obvious to apply the teaching of Bray to the system of Iyengar. One would have been motivated to such a modification in order to define constraints on logical structure and to support the use of predefined storage units as per the suggestion of Bray.

Birsan teaches a First Type (Business Class, Col. 7, Ln. 1 – 20), a Metadata (“...metadata...”, Col. 5, Ln. 17 – 30), a Meta Model (Col. 5, Ln. 17 – 30), Generating Documents (“...code...”, Col. 5, Ln. 30, “...code...”, Col. 7, Ln. 21 – 26), an Importer (“Once...”, Col. 7, Ln. 21 – 26, “...imported back...”, Col. 9, Ln. 3 – 16) and an Exporter

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("Once...", Col. 7, Ln. 21 – 26, "...imported in the modeling tool...", Col. 9, Ln. 3 – 5). It would have been obvious to apply the teaching of Birsan to the modified system of Iyengar. One would have been motivated to such modifications in order to generate code as suggested by Birsan (Col. 5, Ln. 29 – 30, Col. 7, Ln. 25 – 26).

As to claim 2, Iyengar teaches a MOF-Based (Business Object Facility).

As to claim 3, Iyengar teaches an UML-Based (UML).

As to claim 4, Iyengar as modified above teaches an XML Document Type Definition (DTD, pages 9, Ln. 29 – 35, page 10, Ln. 1 – 12).

As to claim 5, Iyengar as modified does not teach XML Metadata Interchange. XMI teaches XML Metadata Interchange (XMI protocol", page 5-32, Ln. 21 – 26). It would have been obvious to apply the teaching of XMI to the modified system of Iyengar. One would have been motivated to make such a modification in view of XMI's suggestion that this will ensure that a given metamodel will always map to the same set of XML DTD regardless of vendor (page 5-32, Ln. 21 – 26).

As to claim 6, see the rejection of claim 1.

As to claim 7, see the rejection of claim 2.

As to claim 8, see the rejection of claim 3.

As to claim 9, see the rejection of claim 4.

As to claim 10, see the rejection of claim 5.

As to claim 11, see the rejections of claims 1 – 5.

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6. Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Crawley et. al. in view Birsan et. al. and in further view of XML Metadata Interchange (XMI)(Hereinafter referred to as XMI).

As to claim 1, Crawley teaches a Repository (MOF Repository, page 3, ln. 20 – 21), a First Type (Record's, page 3, ln. 15 – 18), Software Modeling Tool (GUI Modeling Tools, page 3, ln. 1 – 4), a Second Type (Integer's, page 3, ln. 15 – 18 ), Distributed Heterogeneous Environment ("...a distributed system...", page 2, ln. 23 – 24), a Meta Model ("...meta-meta objects...", page 3, ln. 20 – 21) and a Set of Rules ("...mapping rules...", page 3, ln. 23 – 25).

Crawley is does not teach streams, generating documents, an importer and an exporter.

Birsan teaches a Generating Documents ("...code...", Col. 5, ln. 30, "...code...", Col. 7, ln. 21 – 26), an Importer ("Once...", Col. 7, ln. 21 – 26, "...imported back...", Col. 9, ln. 3 – 16) and an Exporter ("Once...", Col. 7, ln. 21 – 26, "...imported in the modeling tool...", Col. 9, ln. 3 – 5). It would have been obvious to apply the teaching of Birsan to the modified system of Iyengar. One would have been motivated to such modifications in order to generate code as suggested by Birsan (Col. 5, ln. 29 – 30, Col. 7, ln. 25 – 26).

XMI teaches Streams (XMI protocol", page 5-32, ln. 21 – 26). It would have been obvious to apply the teaching of XMI to the system of Crawley and Birsan. One would have been motivated to make such a modification in view of XMI's suggestion that this will ensure that a given metamodel will always map to the same set of XML DTD regardless of vendor (page 5-32, ln. 21 – 26).

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As to claim 2, Crawley teaches a MOF-Based (Meta Object Facility).

**Conclusion**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 6,023,579 to Hellgren et. al.

U.S. Pat. No. 6,014,680 to Sato et. al.

U.S. Pat. No. 5,889,992 to Koerber.


U.S. Pat. No. 5,721,925 to Cheng et. al.

S. Crawley et. al. Meta-meta is better-better !

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (703) 305-3411. The examiner can normally be reached on M – F (First Friday Off) from 8:30 am to 5:30 pm.

The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

  
ST. JOHN COURTENAY III  
PRIMARY EXAMINER

Charles E Anya  
Examiner  
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